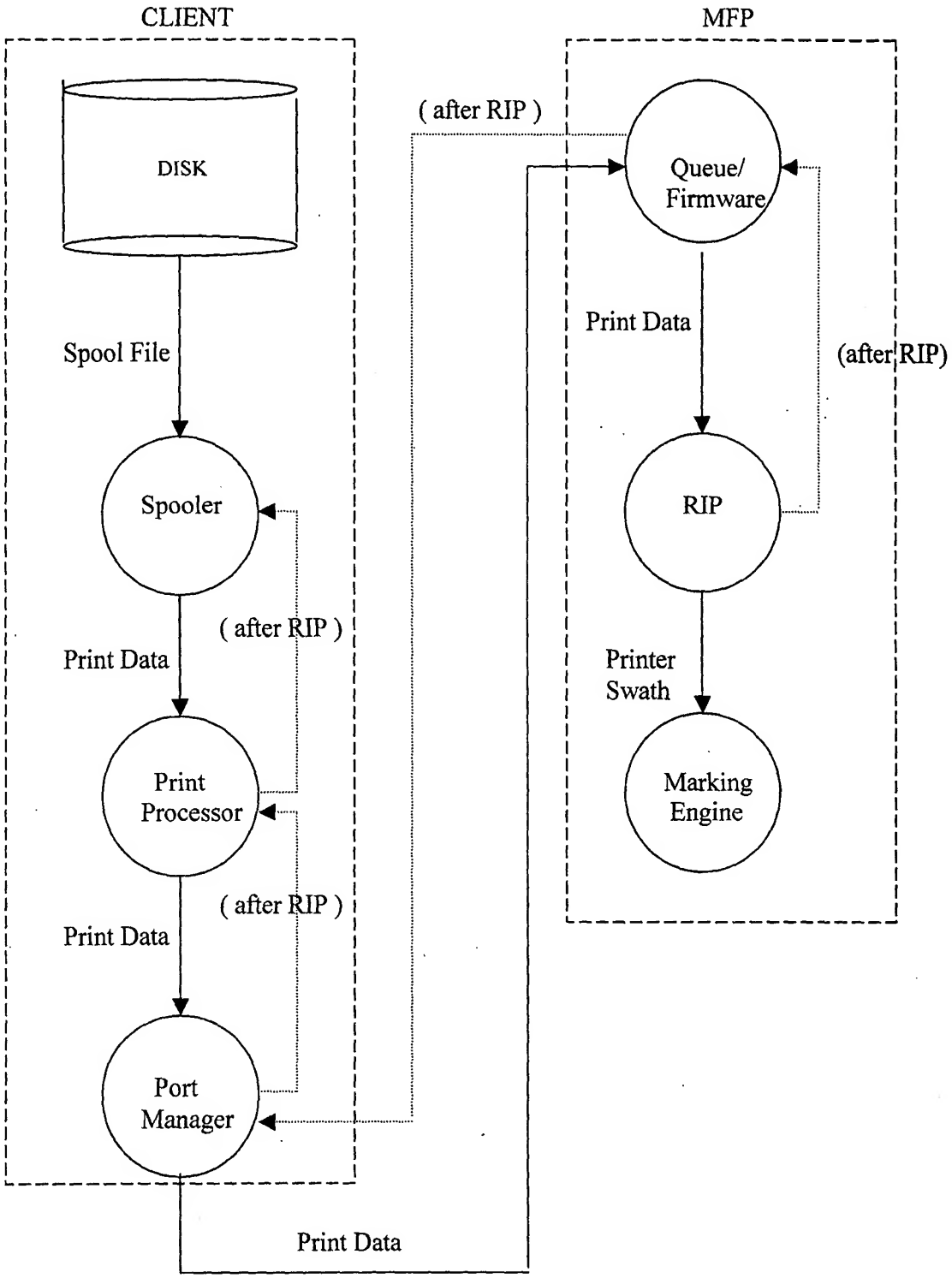

Fig. 1 (PRIOR ART)

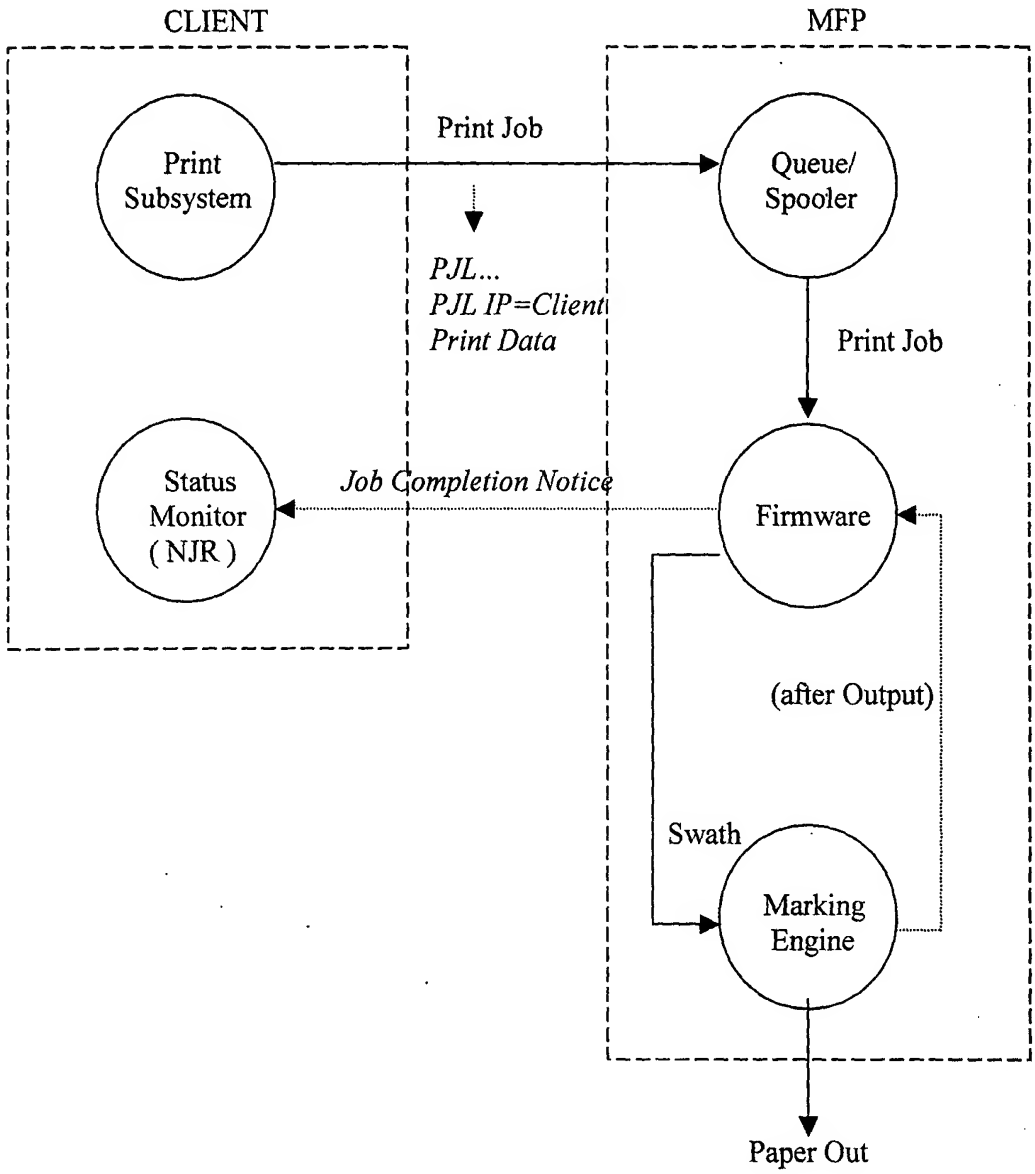

Fig. 2 (PRIOR ART)

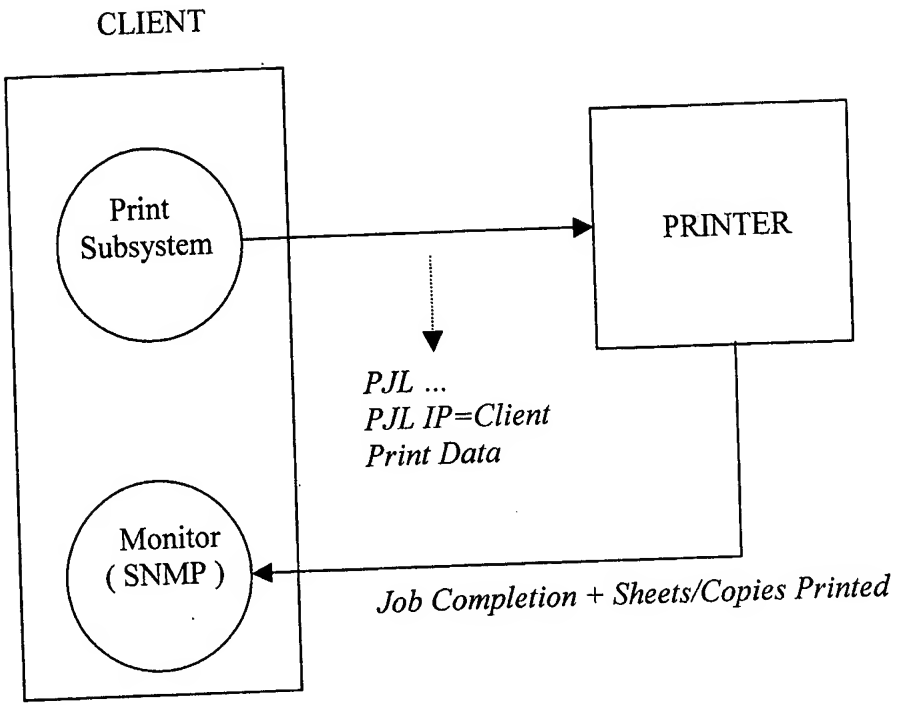

Fig. 3 (PRIOR ART)

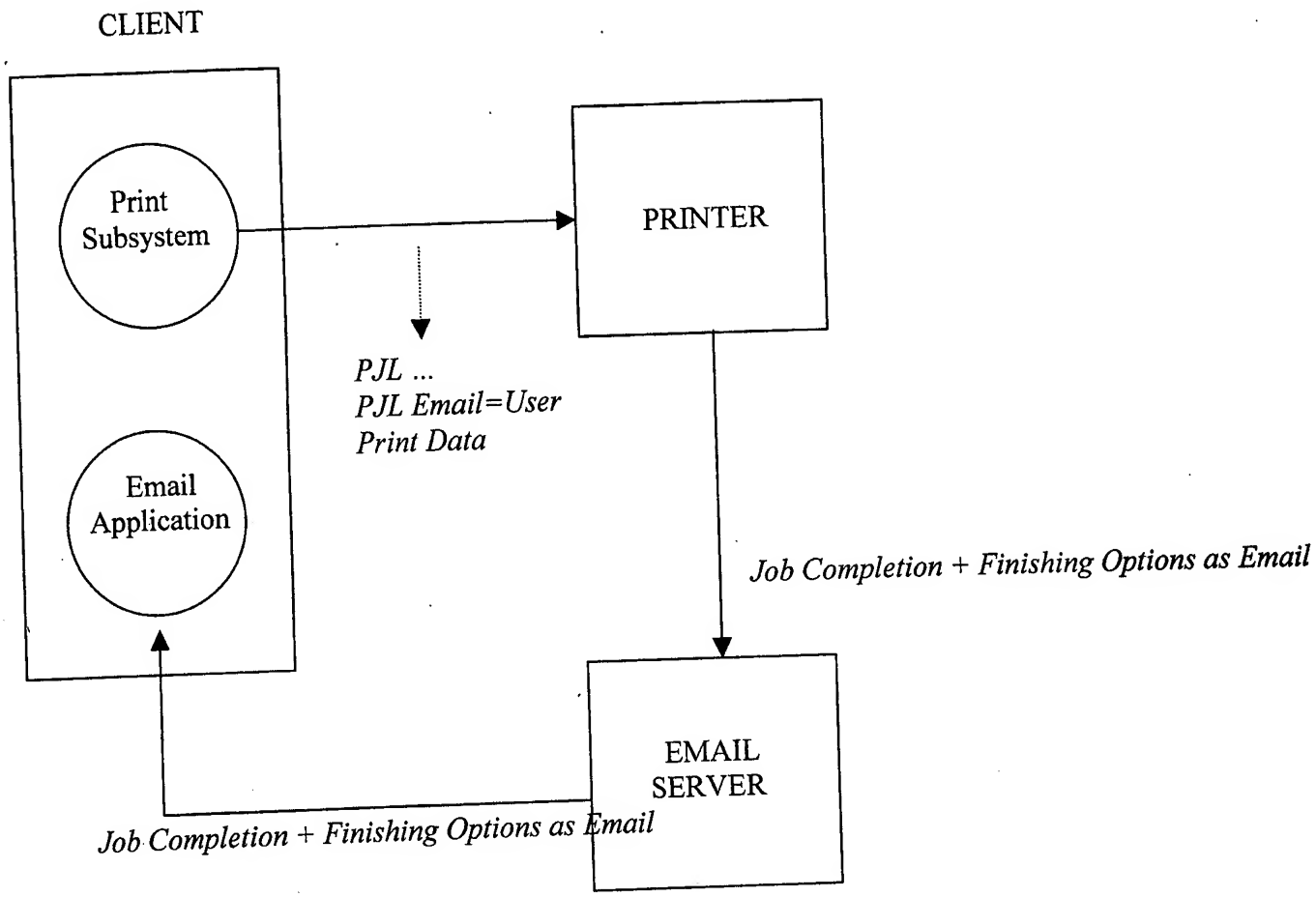

Fig. 4 (PRIOR ART)

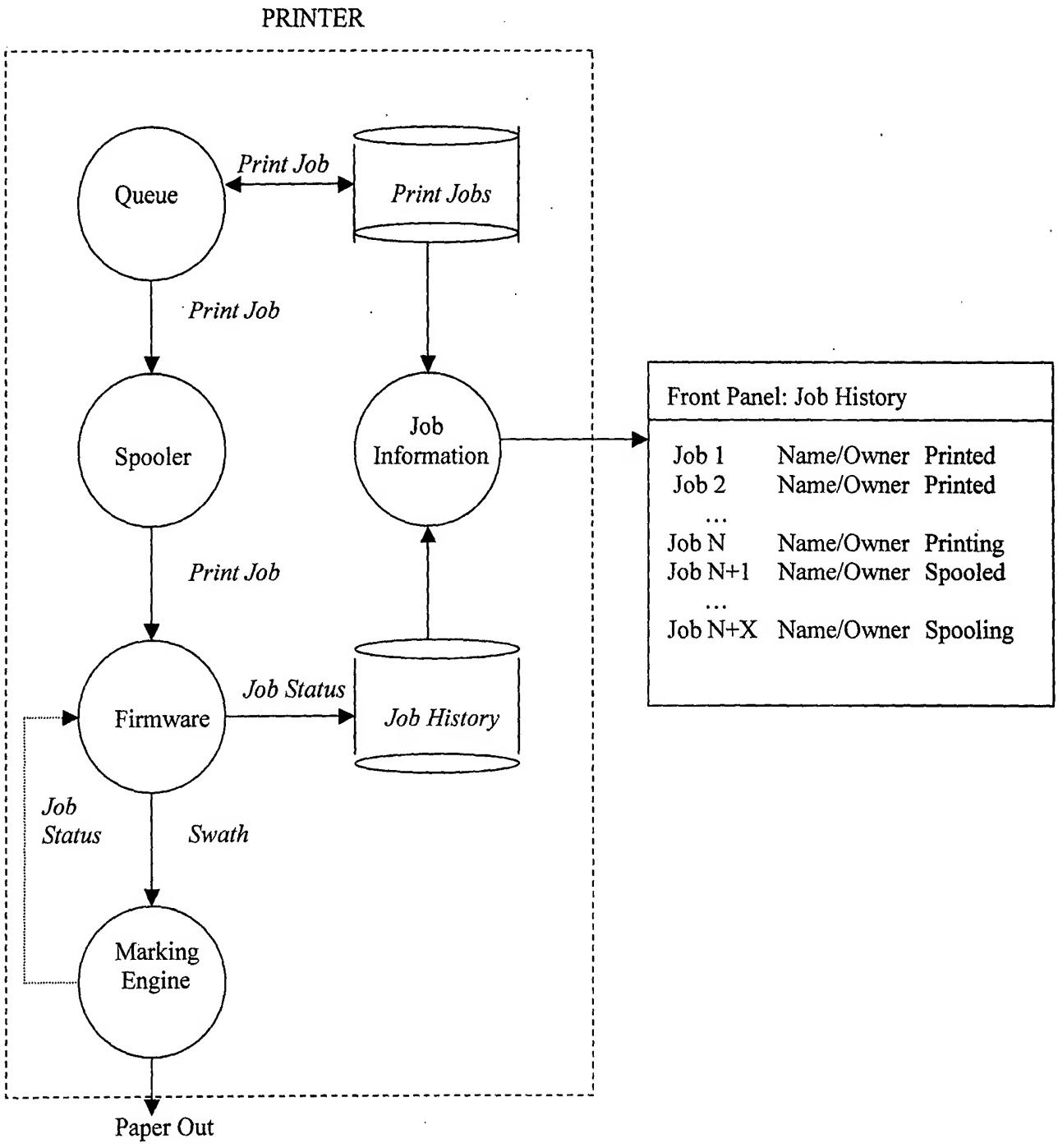

Fig. 5 (PRIOR ART)

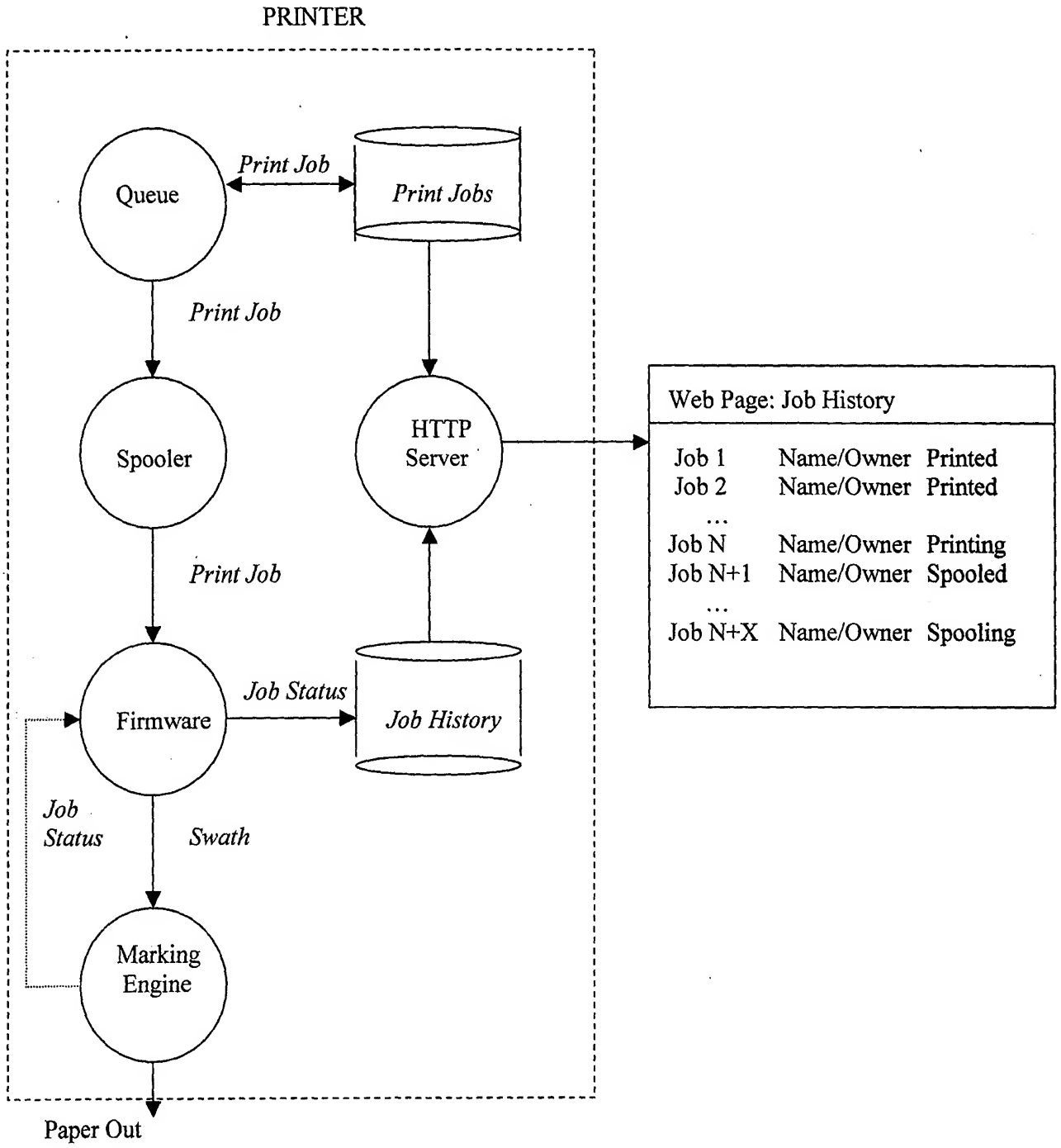

Fig. 6 (PRIOR ART)

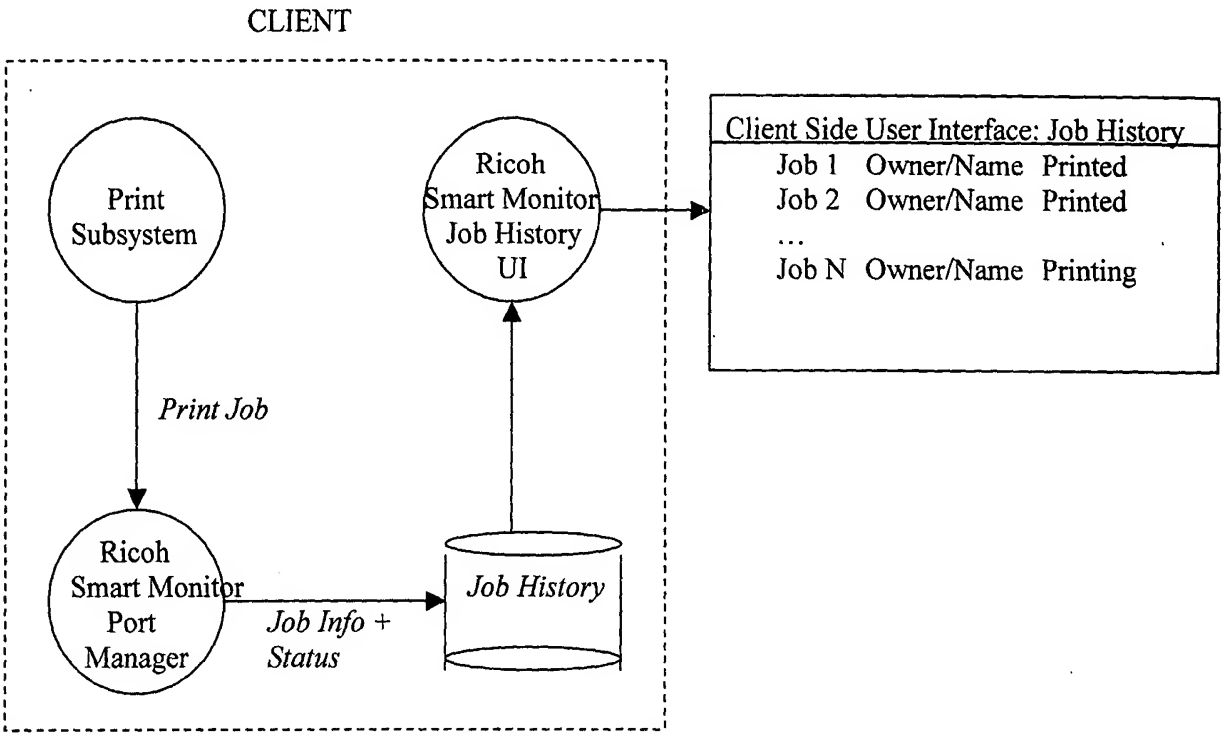

Fig. 7 (PRIOR ART)

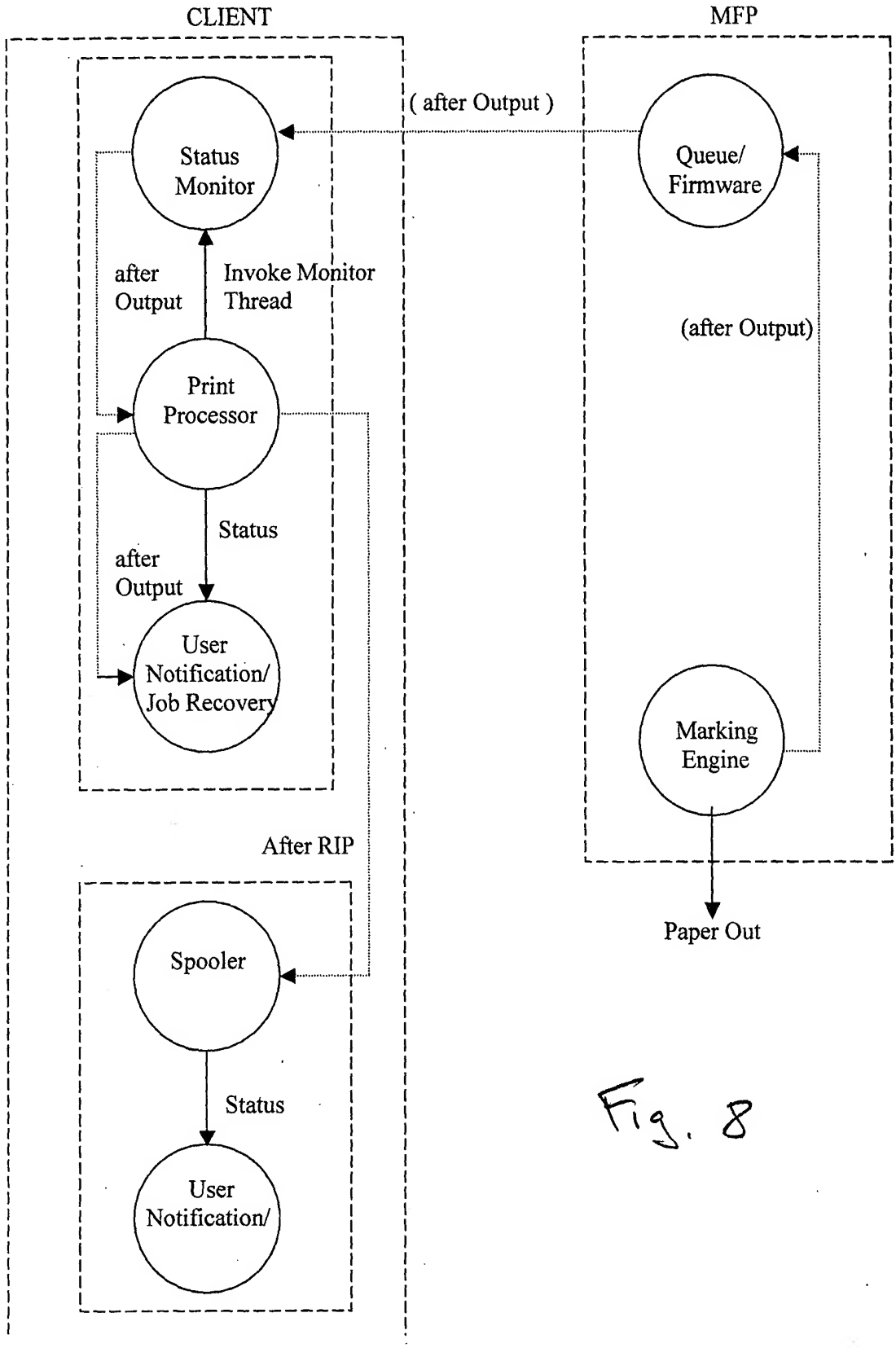
CLIENT
MFP
(after Output)
Status Monitor
Queue/ Firmware
after Output
Invoke Monitor Thread
(after Output)
Print Processor
Status
after Output
User Notification/ Job Recovery
Marking Engine
After RIP
Paper Out
Spooler
Status
User Notification/

Fig. 8

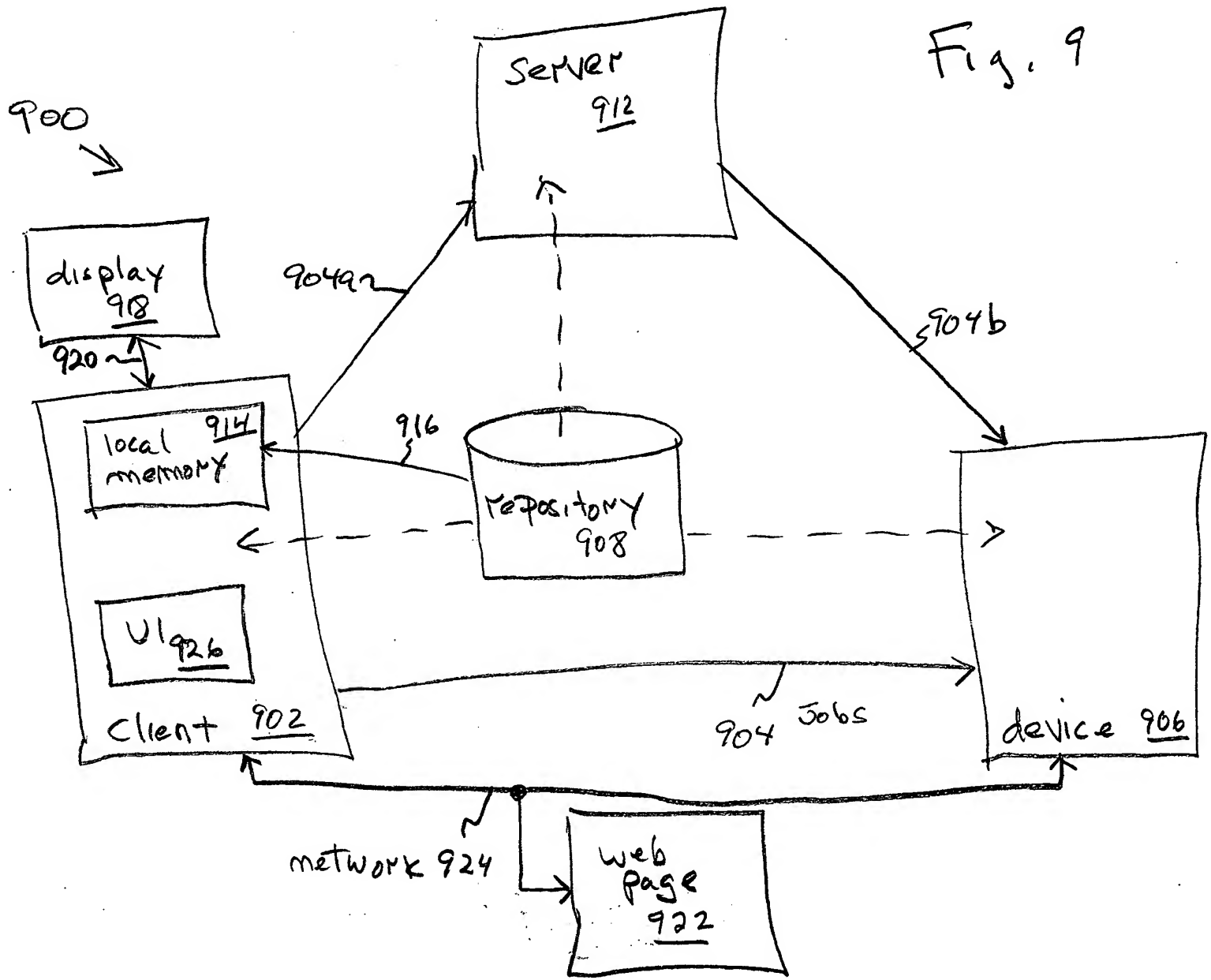
900
server
912
display
918
920
904a
904b
local
memory
914
916
repository
908
UI
926
client
902
904
Jobs
device
906
network 924
web
page
922

Fig. 9

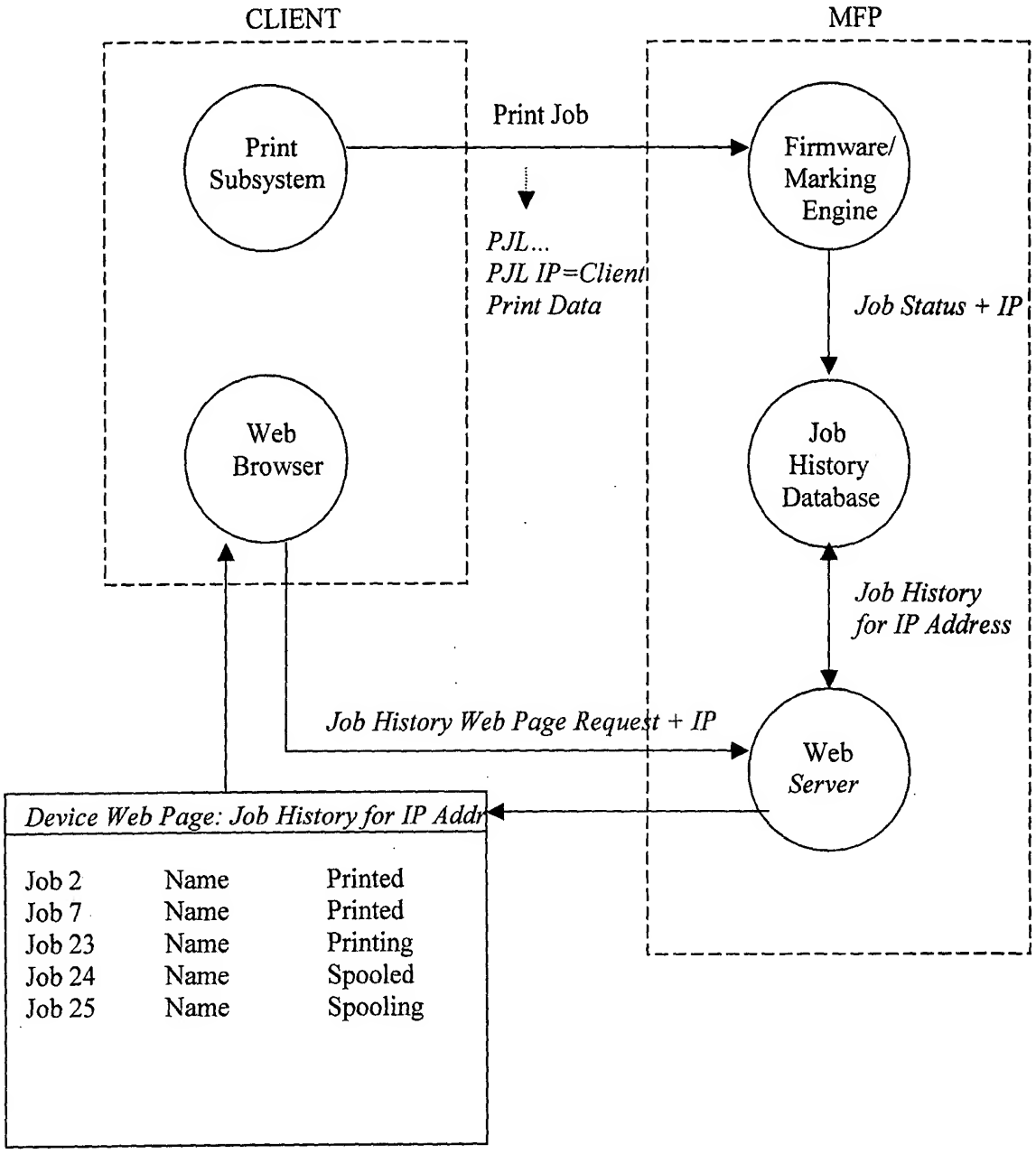
CLIENT
MFP
Print Subsystem
Print Job
Firmware/ Marking Engine
PJL...
PJL IP=Client
Print Data
Job Status + IP
Web Browser
Job History Database
Job History for IP Address
Job History Web Page Request + IP
Web Server
Device Web Page: Job History for IP Addr
Job 2 Name Printed
Job 7 Name Printed
Job 23 Name Printing
Job 24 Name Spooled
Job 25 Name Spooling

Fig. 10

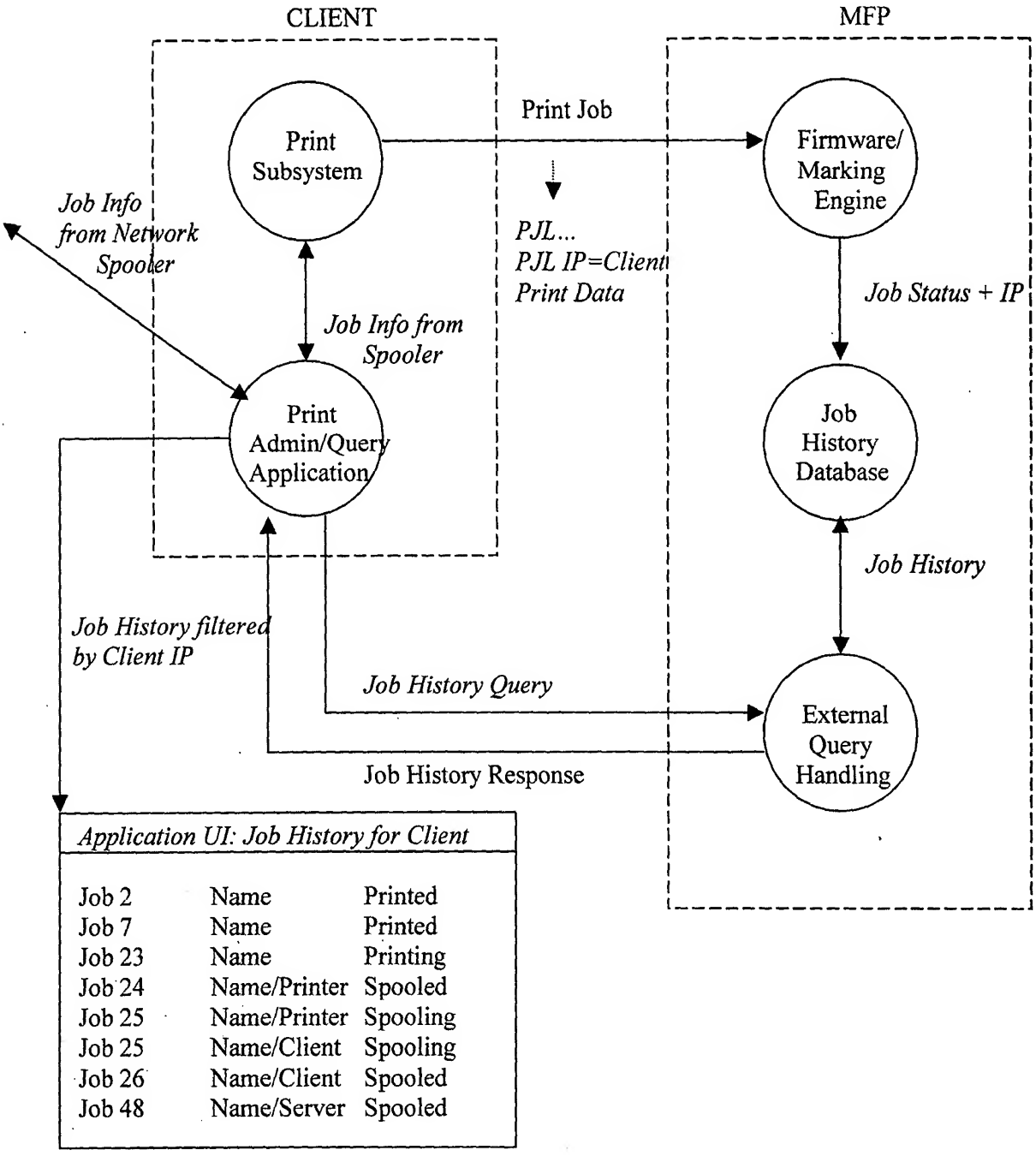
CLIENT
MFP
Print Subsystem
Print Job
Firmware/ Marking Engine
Job Info from Network Spooler
PJL...
PJL IP=Client
Print Data
Job Status + IP
Job Info from Spooler
Print Admin/Query Application
Job History Database
Job History
Job History filtered by Client IP
Job History Query
External Query Handling
Job History Response
Application UI: Job History for Client
Job 2 Name Printed
Job 7 Name Printed
Job 23 Name Printing
Job 24 Name/Printer Spooled
Job 25 Name/Printer Spooling
Job 25 Name/Client Spooling
Job 26 Name/Client Spooled
Job 48 Name/Server Spooled

Fig. 11

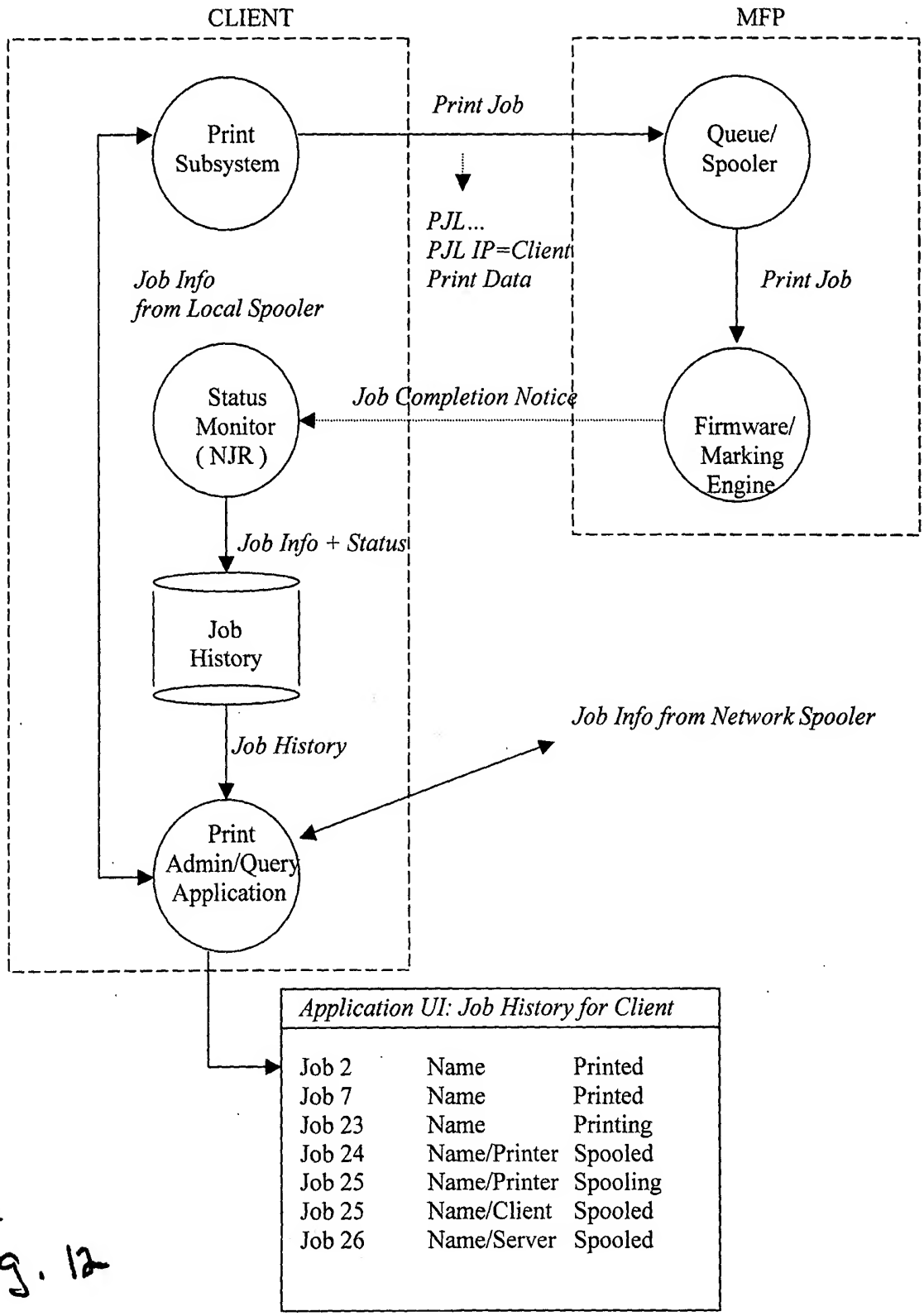
CLIENT
MFP
Print Subsystem
Print Job
Queue/ Spooler
PJL...
PJL IP=Client
Print Data
Job Info
from Local Spooler
Print Job
Status Monitor (NJR)
Job Completion Notice
Firmware/ Marking Engine
Job Info + Status
Job History
Job Info from Network Spooler
Job History
Print Admin/Query Application
Application UI: Job History for Client
Job 2 Name Printed
Job 7 Name Printed
Job 23 Name Printing
Job 24 Name/Printer Spooled
Job 25 Name/Printer Spooling
Job 25 Name/Client Spooled
Job 26 Name/Server Spooled

Fig. 12

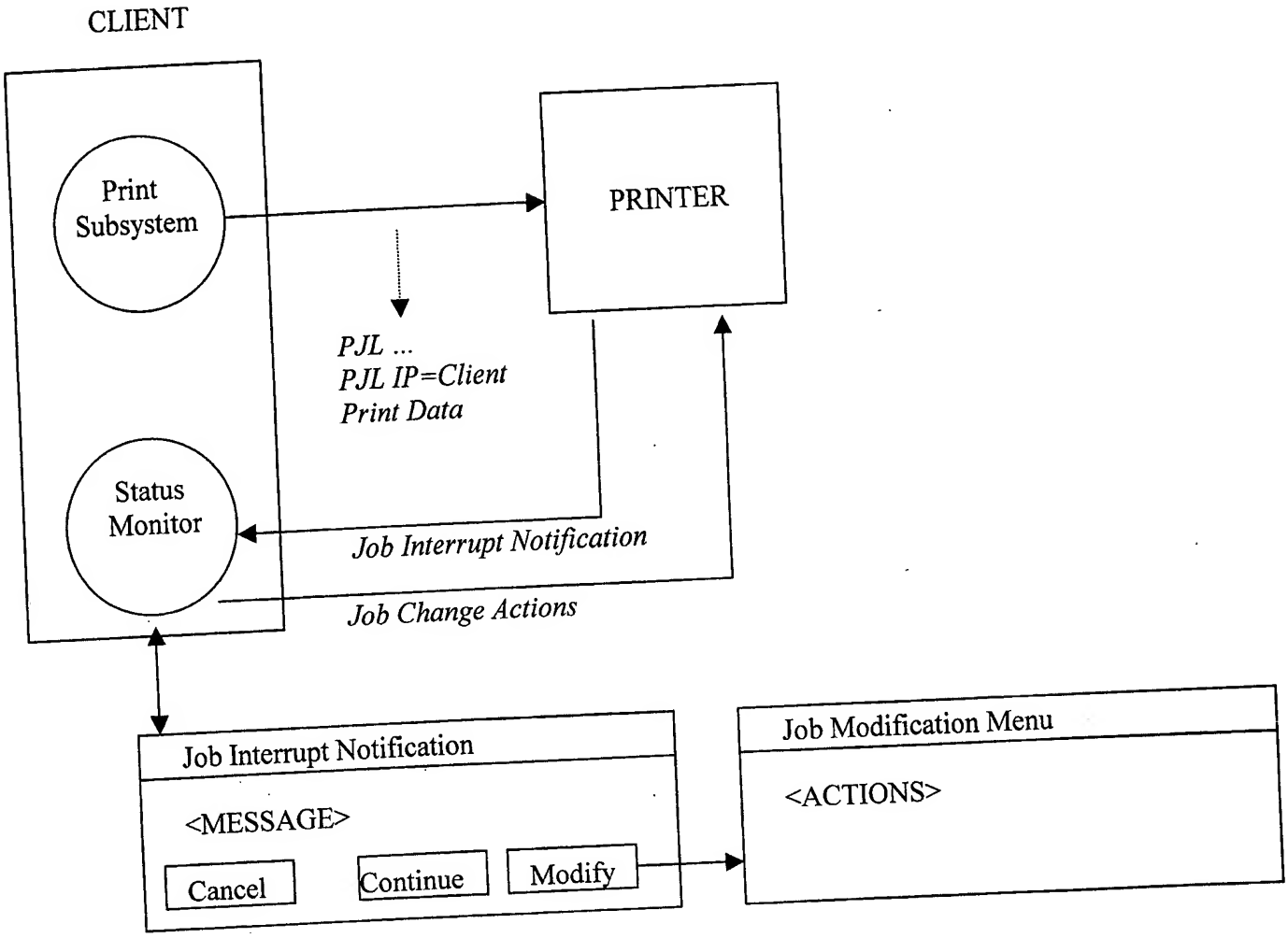
CLIENT
Print Subsystem
Status Monitor
PRINTER
PJL ...
PJL IP=Client
Print Data
Job Interrupt Notification
Job Change Actions
Job Interrupt Notification
<MESSAGE>
Cancel
Continue
Modify
Job Modification Menu
<ACTIONS>

Fig. 13

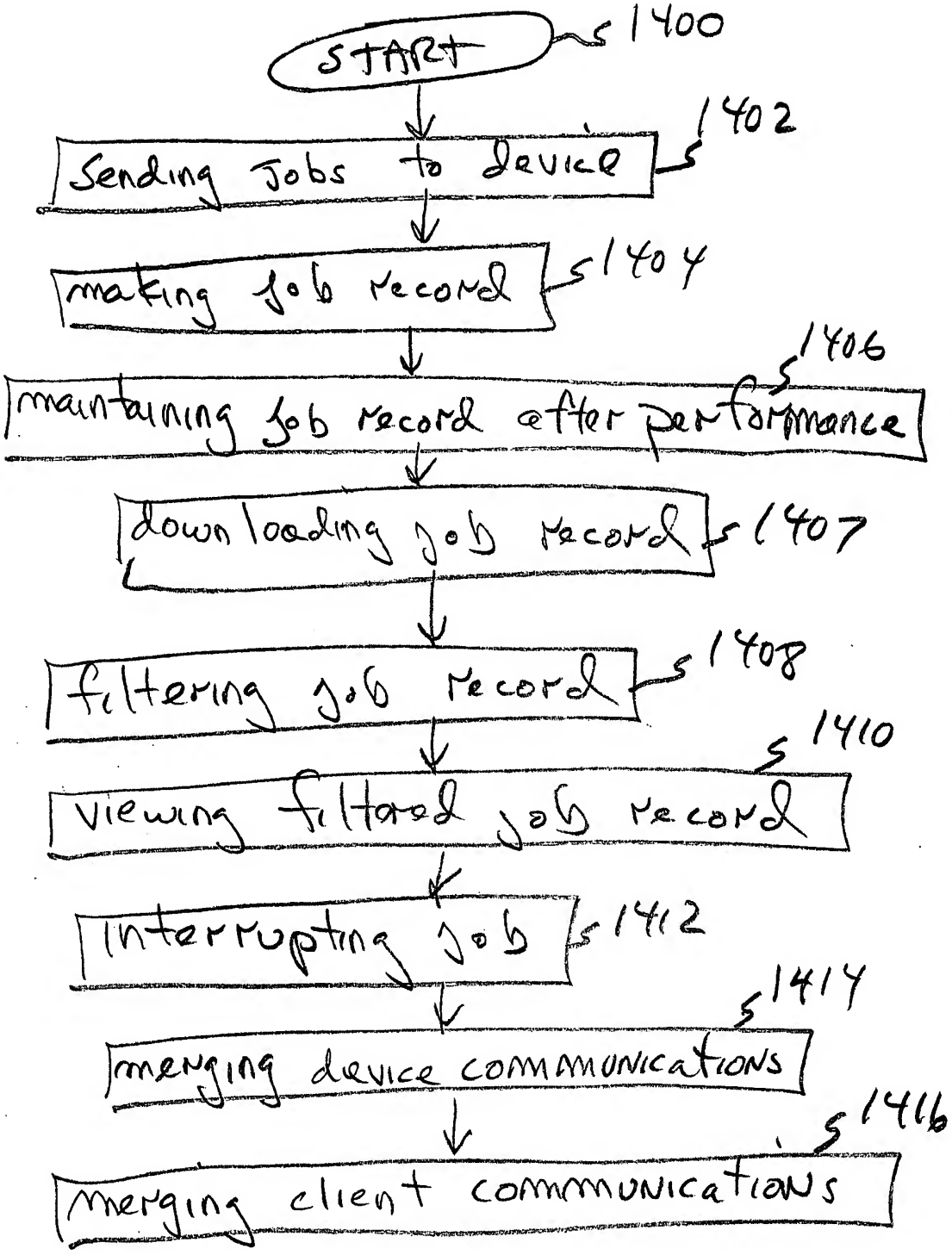
START
1400
Sending Jobs to device
1402
making job record
1404
maintaining job record after performance
1406
downloading job record
1407
filtering job record
1408
viewing filtered job record
1410
interrupting job
1412
merging device communications
1414
merging client communications
1416

Fig. 14